Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: 2.4G/5.8G WIFI Antenna

Part NO.: K233.WIFI.V2.C113.150B.1

Write By: YAN PEI HAI

Issued Date: 2023-03-15

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

R & D Center: Room D 5th Floor Building L,Block E ,71 Baocheng District ,Baoan District ,Shenzhen
Factory: 6 Floor,GangHuaXing Industrial Park,Rongshu Road 2nd ,Fuyong,Baoan ,shenzhen
Email:damoncui@tllskylink.com

● Specification Summary

A. Electrical Characteristics	
Frequency	**2400MHz ~2500MHz 5100MHz ~5800MHz**
VSWR	**<2.0**
Efficiency	**>50%**
Peak Gain	**2.36dbi**
Impedance	**50 Ohm**
Polarization	**Line**
B. Material & Mechanical Characteristics	
Material of Radiator	**Cu**
Cable Type	**RG1.13 Black**
Connector Type	**I**
Dimension	At Attachment
Heat-durability	**280±5˚C， 10sec.**
C. Environmental Characteristics	
Operation Temperature	**- 20 ˚C ~ + 80 ˚C**
Storage Temperature	**- 30 ˚C ~ + 85 ˚C**

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● Test Equipment & Conditions

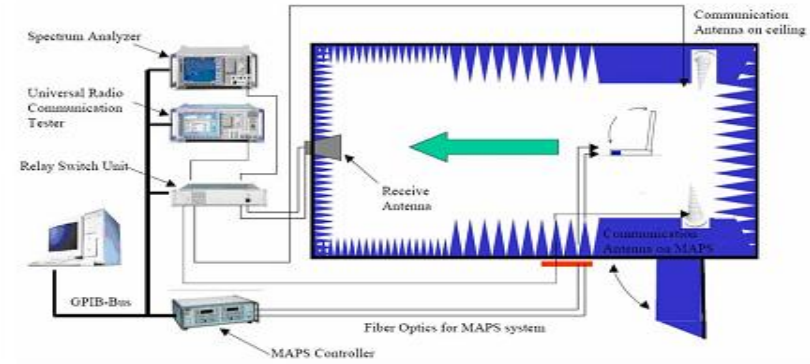
1. Network Analyzers :

Agilent 8753D 5071B

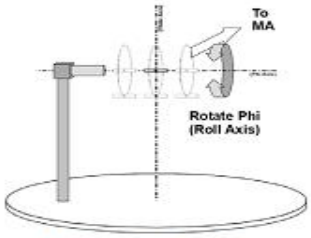
Communications Test Set:

Agilent E5515C CMW500

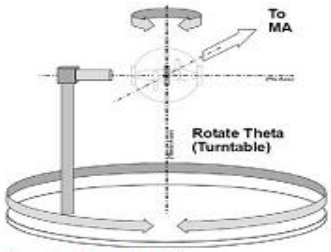
2. 3D Chamber Test System



(Testing by 3D anechoic chamber)



Phi axis test



Theta axis test

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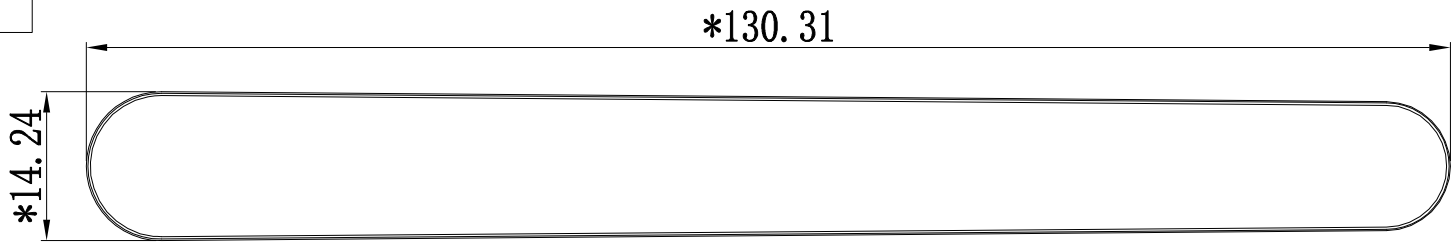
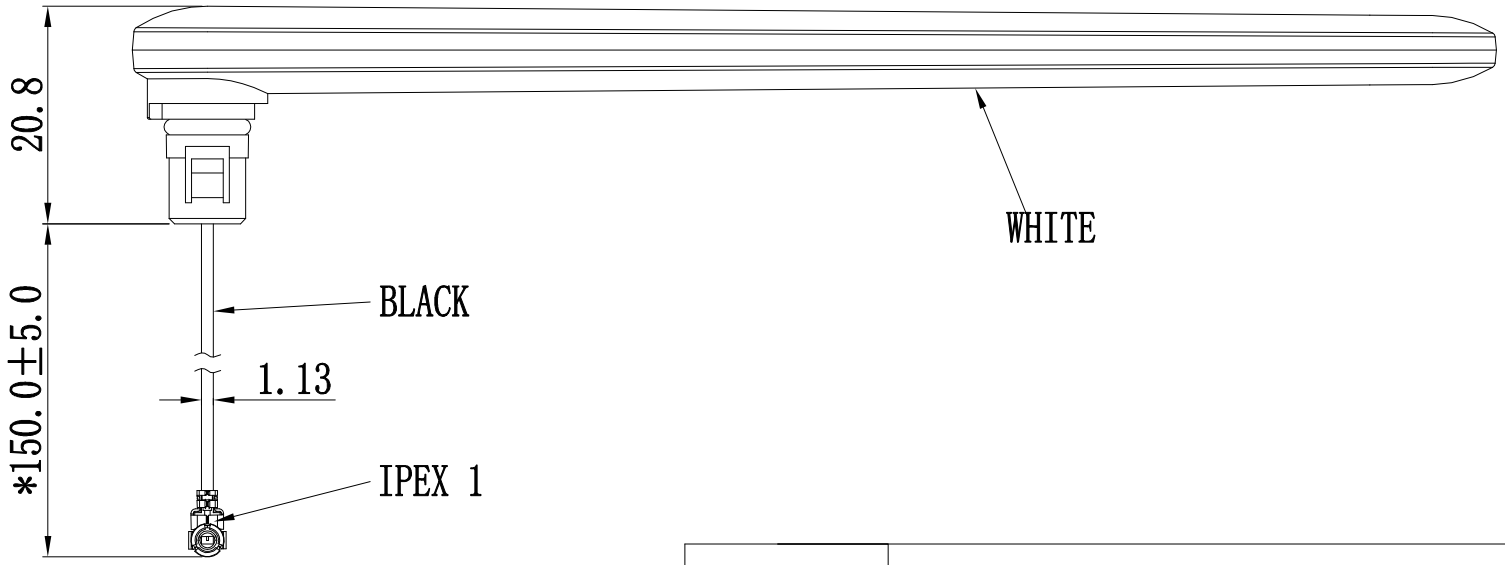
RoHS
Compliant
G P





Rev	Description	Date	Remark
A	New drawing		

SHEN ZHEN SKYLink CO.,LTD

Third Angle				Project		Date	2023-03-07
0～10	±0.05	○	0.02	Part Name		Designed by	
10～18	±0.10	◎	⌀0.03	Part No.	K233.WIFI.V2.C113.150B.1	Checked by	MD
18～30	±0.12	⊥	0.02	Material			RF
30～40	±0.15	▱	0.04	DWG No.		Approved by	
40～	±0.20	Angle	±0.5°			Unit mm	Scale 1:1 Rev A
Location							

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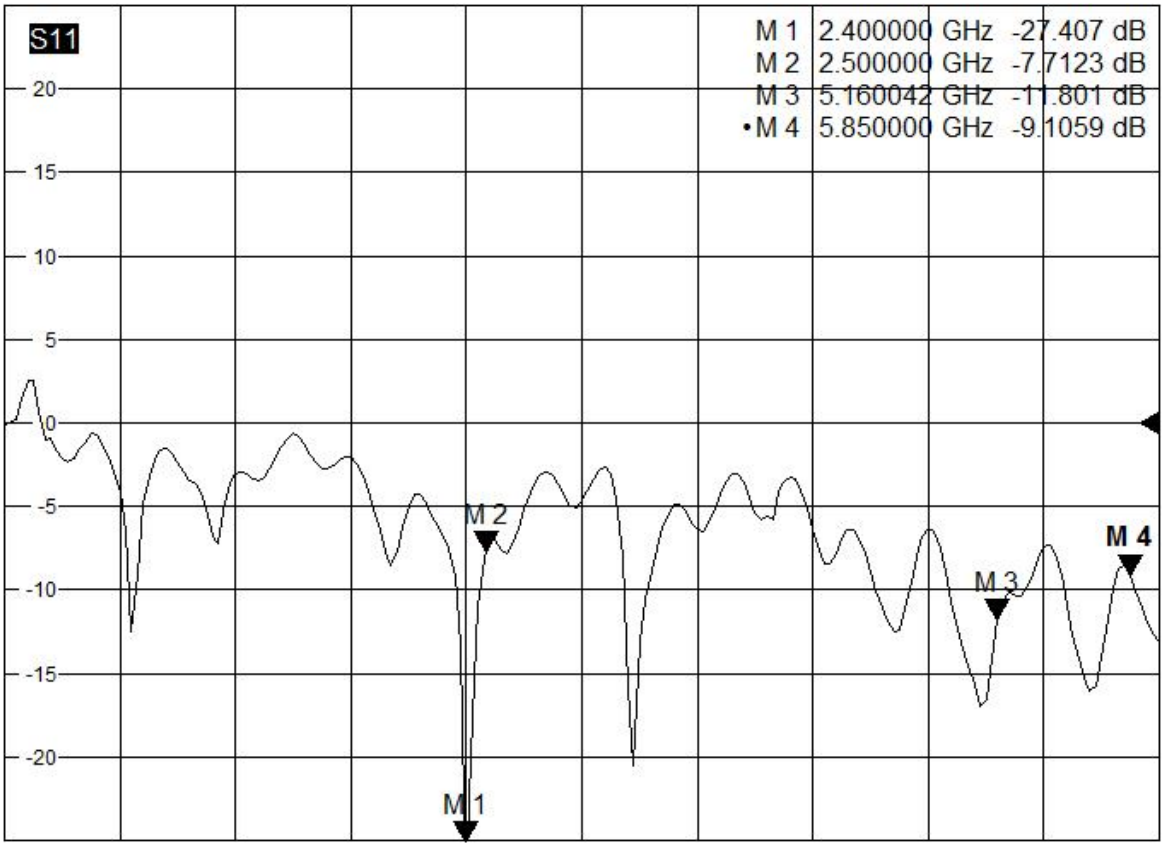
◆ Return Loss



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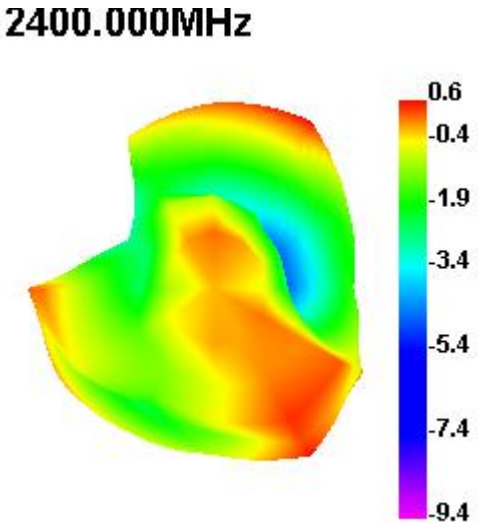
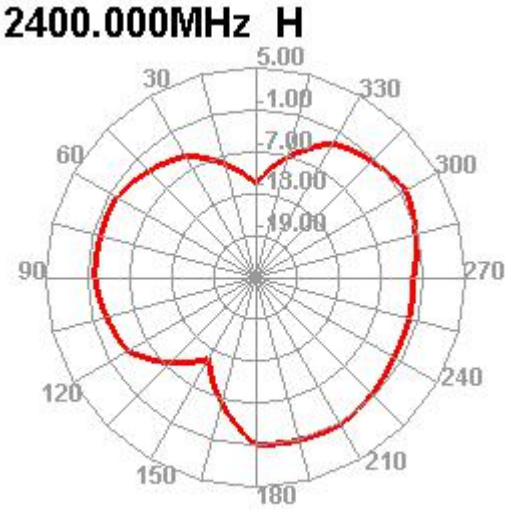
◆ Gain & Efficiency

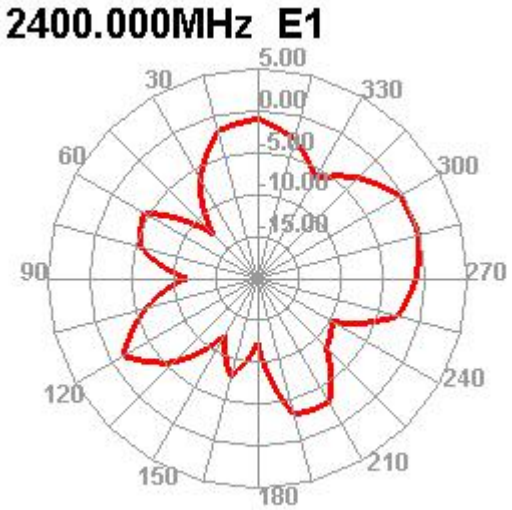
Fre (MHz)	Eff (%) (dB)	Gain (dB)
2400	67.22	2.36
2410	68.36	2.36
2420	68.52	2.33
2430	68.41	1.85
2440	67.52	1.57
2450	65.23	1.55
2460	65.33	1.87
2470	64.52	2.12
2480	64.55	2.11
2490	63.25	2.31
2500	62.51	2.19

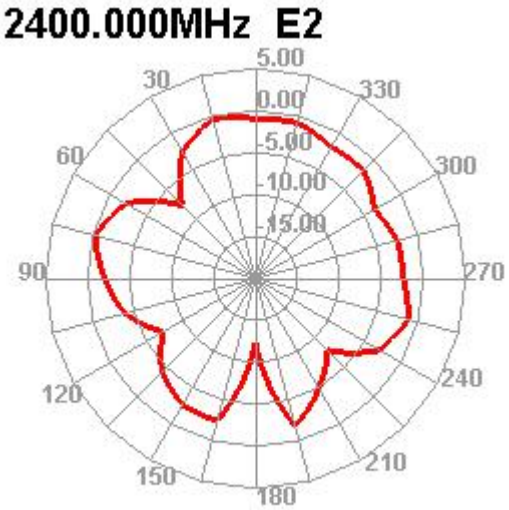
Fre (MHz)	Eff (%) (dB)	Gain (dB)
5100	53.62	2.23
5200	52.33	2.22
5300	50.23	2.21
5400	48.62	1.89
5500	47.55	1.74
5600	50.23	2.1
5700	51.26	2
5800	50.3	2.34

◆ Radiation Pattern









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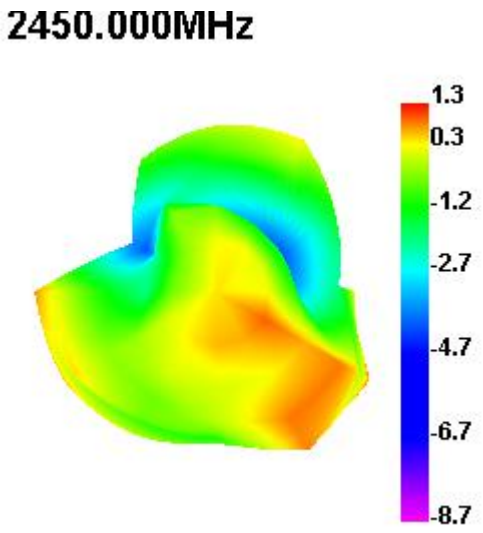

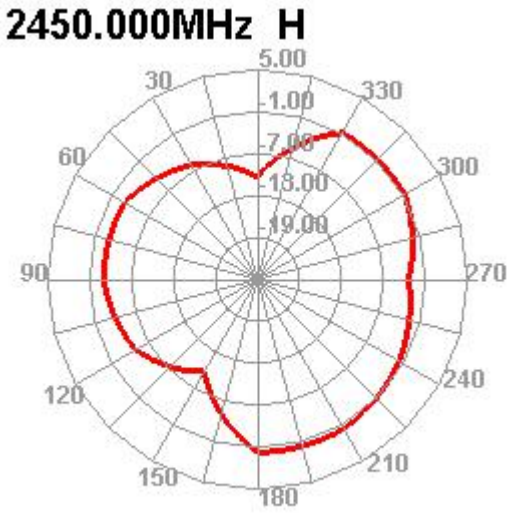

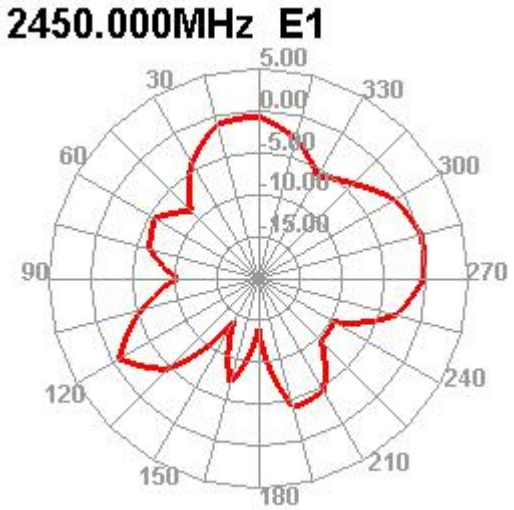

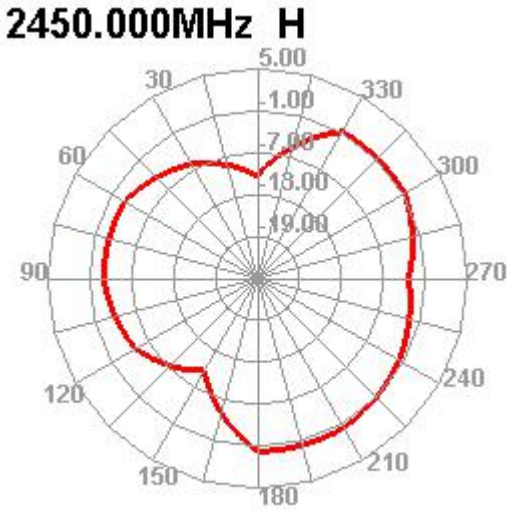

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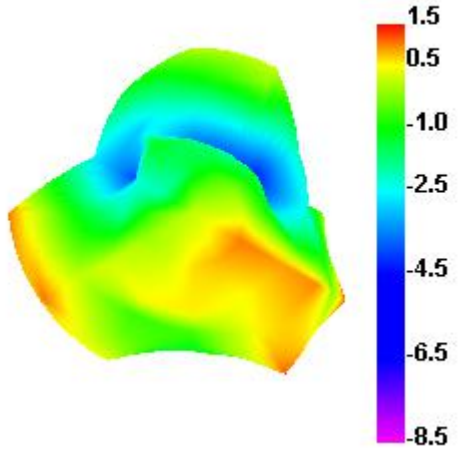
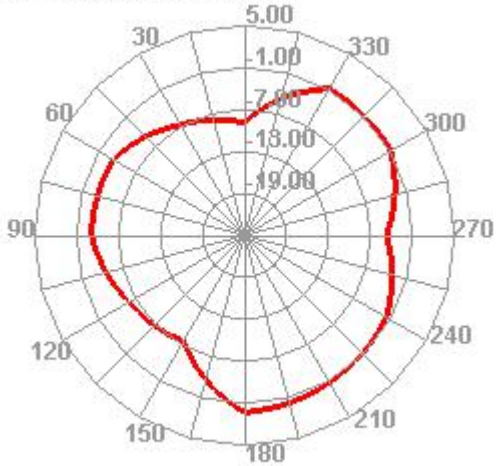
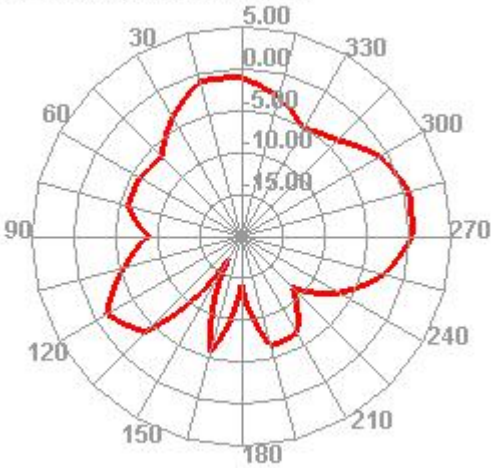
2500.000MHz



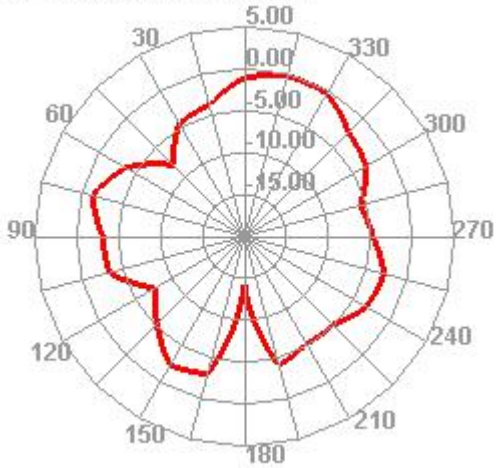
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



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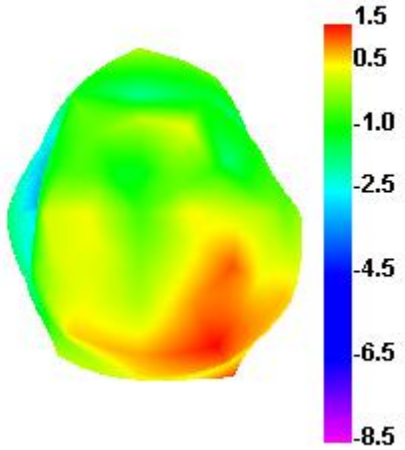
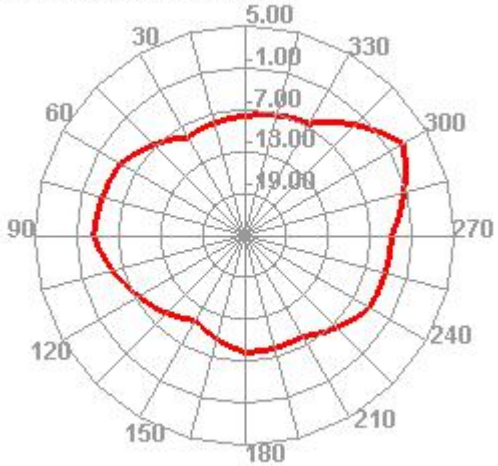
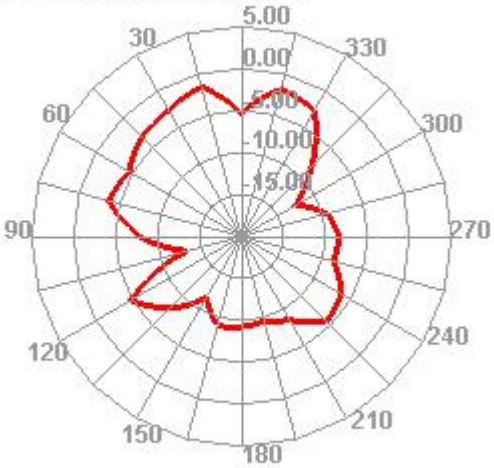
5150.000MHz



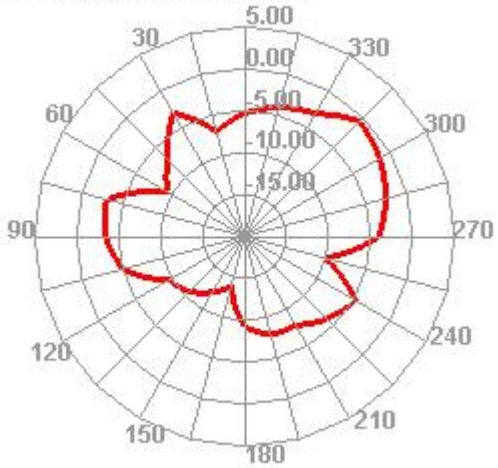
5150.000MHz H



5150.000MHz E1



5150.000MHz E2



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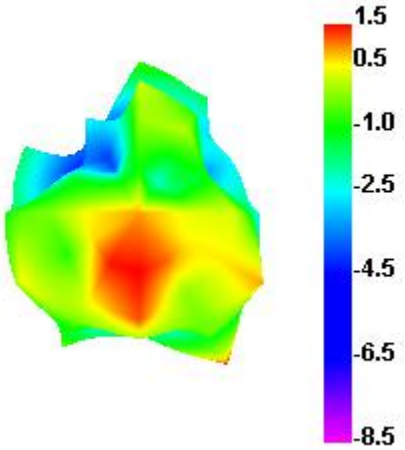
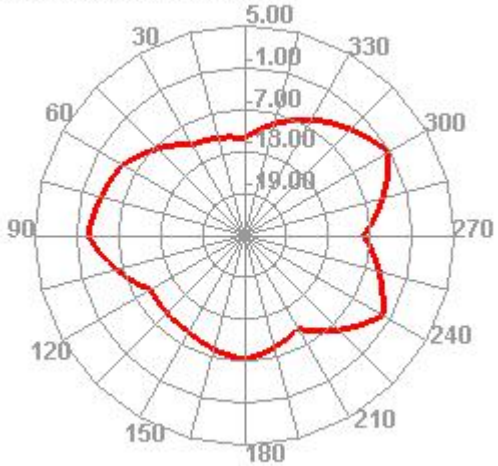
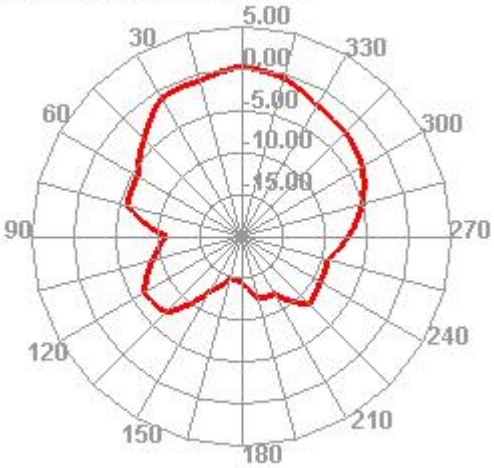
5550.000MHz



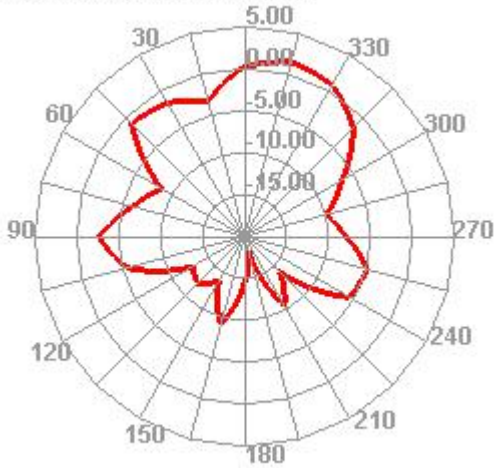
5550.000MHz H



5550.000MHz E1



5550.000MHz E2



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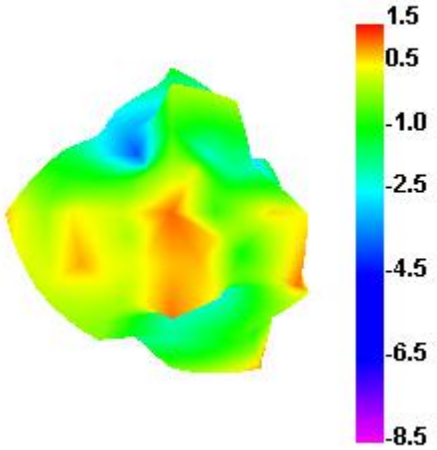
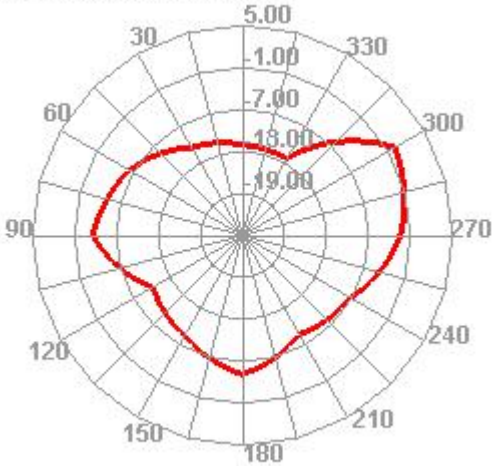
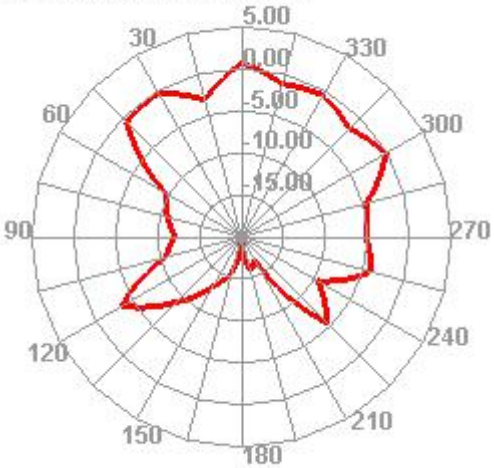
5850.000MHz



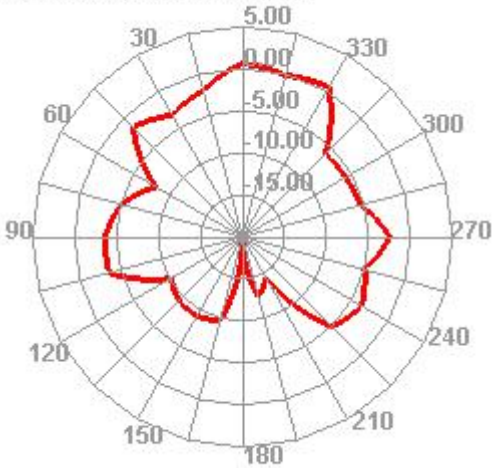
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



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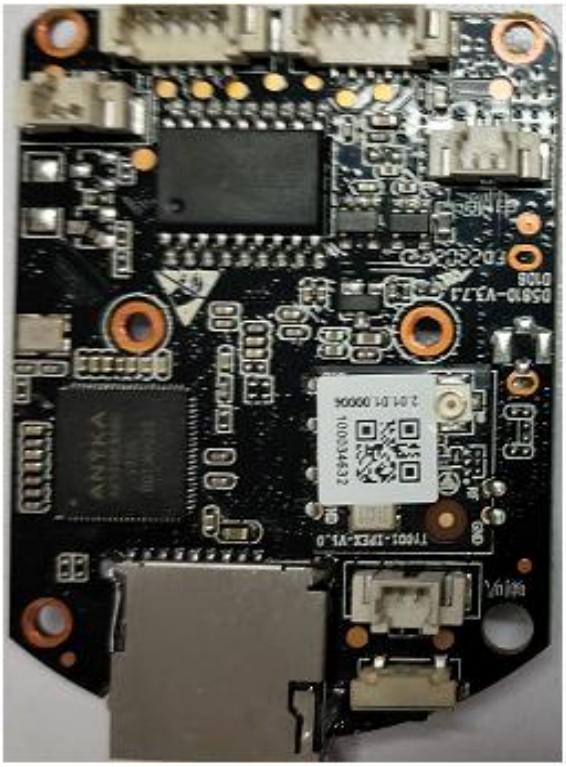
◆ Antenna Picture



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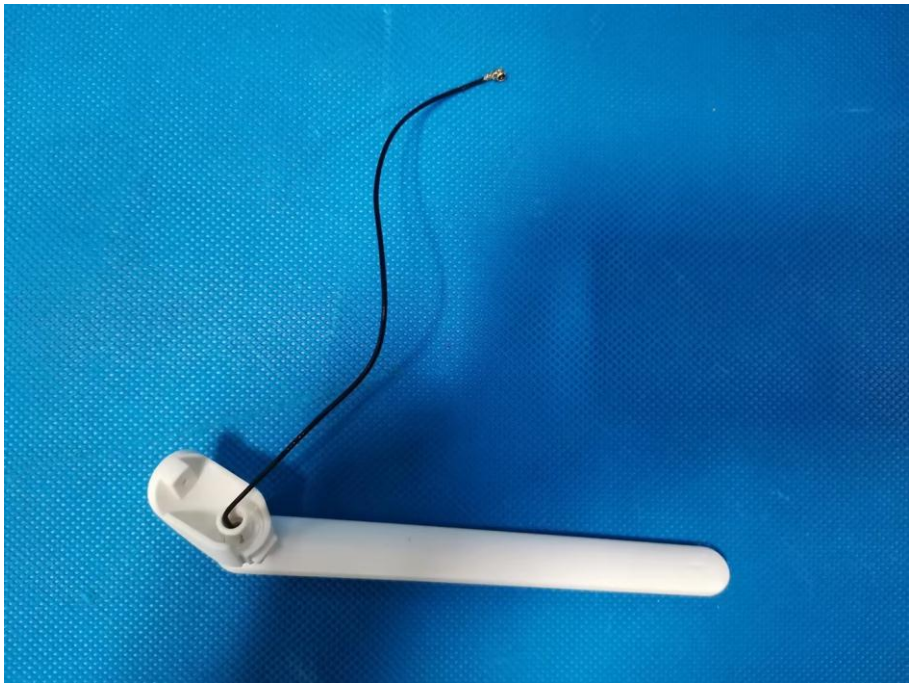
◆ Reliability Test

Test Item		Test condition	Equipment	Specification	Result
1	Low Temp. Storage Test	Temperature: -30℃， Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2	High Temp./High Humid Storage Test	Temperature: 85℃ Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-up the temp. to 80℃ and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3	Salt-Spray 6 pray Test	Placing antenna in the Salt-Spray Tester ,set the test condition ， Temp: 35±2℃ Humidity: 85% NaCl salt spray :5 ±1 %.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS

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